

Amendments to the Specification

Please replace paragraph [0037] (page 6, lines 17–21) with the following amended paragraph:

[0037] This selection moreover conditions a certain number of design options which are stated in this description, notably combined with another feature used within the scope of the invention, i.e., the ring disc is deformed at zero voltage so that it has a concavity (FIG. 3) directed towards the needle which is fixed to it.

Please replace paragraph [0050] (page 8, lines 12–25) with the following amended paragraph:

[0050] With a second needle (10), it is possible to block the end of a channel (11) connecting the high pressure hydraulic chamber (8) to the low pressure hydraulic chamber (9). As in reality, this second needle (10) is the flap of the hydraulic valve of the invention, the seat of said flap, where the channel (11) opens out, is positioned in a first part (12) also achieving the translational guiding of the flap (10), thereby facilitating the initial adjustments. Said translational displacement is limited by the aforementioned seat on the one hand, and by a second part (13) and an abutment (19) on the other hand, in which the port is provided (7), blocked by the needle (6). The nature of the mechanical relationships between the different customary components of the solenoid valve of the invention, as well as with the intermediate connecting parts, for example for fixing the first needle (6) to the piezoelectric ring disc (5), or the sealing modes (by an O-ring) between said components, are considered to be conventional and therefore known, and so will not be detailed in the present description.

Please replace paragraph [0055] (page 9, lines 22–34) with the following amended paragraph:

[0055] Fig. 2 relates to an alternative of the solenoid valve of Fig. 1, the only change consisting in introducing a spring (14) between the piezoelectric component (5) and a ring (15) integral with the case of the solenoid valve (1). Integration of the spring initially has the purpose of reducing the response time upon closing. However it is not detrimental to the rapidity of the opening, in particular, if more holes (20) are added into the piezoelectric crown (5) which reduce its resistance to displacement. Indeed, the force due to the pressure and to the flow rate under said ring disc (5) and also under the needle (6), is directed upwards and increases when the stroke of the piezoelectric element and therefore the needle (6) increases. In fact, with this force, it is possible to keep the piezoelectric ring disc in its open position, in spite of the spring and in spite of the fact that at full stroke, the opening force of the piezoelectric element decreases.

Please replace paragraph [0057] (page 10, lines 5–11) with the following amended paragraph:

[0057] Instead of or in addition to the spring (15), an additional third part (16) may be also provided, positioned in the low pressure hydraulic chamber (8), inside the part (13) containing the port (7) and translationally guiding the first needle (6). This part (16) which limits the passage of the fluid towards said port (7) very substantially, creates a restriction to said passage with which the effect of a spring may be obtained, but without having its drawbacks, since it has no effect on the displacement of the piezoelectric component (5).

Please replace paragraph [0058] (page 10, lines 12–23) with the following amended paragraph:

[0058] The configuration shown in Fig. 3, is with a direct drive. In this case, the needle (10') forming the flap is made directly integral with the piezoelectric ring disc (5) via the shaft (17). Under this assumption, the high pressure hydraulic chamber (8') is localized between a fourth part (18) guiding the shaft (17), and the seat of the flap (10'), contained in an element (12') further contributing to its guiding. When the voltage across the terminals of the piezoelectric element (5) is zero, the flap (10') rests in contact with its

